Patent Claims

Subdet

1. Ball cage for homokinetic joints, formed from a blank that is configured as a substantially annular spherical segment, with window-type ball pockets located along the equator with substantially equator-parallel bearing surfaces that interact with the joint balls, with substantially annular functional zones that are designed at least on the outer ring edge areas and that interact with a joint bell, and with substantially annular functional areas that are designed on the inner ring areas and interact with the joint spider,
characterized by the fact
that on the blank at least some of the functional zones are elevated compared to the neighboring areas of the ball cage.

2. Ball cage pursuant to claim 1, characterized by the fact that the blank is hardened before finishing the functional zones.

3. Ball cage pursuant to one of the previous claims, characterized by the fact that on the hardened blank only the elevated functional zones are processed through hard-turning.

4. Ball cage pursuant to one of the previous claims, characterized by the fact that it contains turned, preferable hard-turned reference surfaces.

5. Ball cage pursuant to one of the previous claims, characterized by the fact that the functional zones, which have been hard-turned, are elevated compared to adjacent surfaces after the finishing process or are at the most on the same level.

6. Ball cage pursuant to one of the previous claims, characterized by the fact that the blank is formed in a rolling process.

7. Ball cage pursuant to one of the previous claims, characterized by the fact that the recesses are stamped.

8. Ball cage pursuant to one of the previous claims, characterized by the fact that the window-type recesses have such dimensions that the surfaces, on which the equator-parallel functional zones are designed, are longer than these and protrude on both sides beyond the functional zone.

9. Ball cage for homokinetic joints, formed from a blank that is configured as a substantially annular spherical segment, with window-type ball pockets located along the equator with substantially equator-parallel bearing surfaces that interact with the joint balls, with several substantially annular functional zones that are designed on the outer ring edge areas and that interact with a joint bell, and with several substantially annular functional areas that are designed on the inner ring areas and interact with the joint spider, characterized by the fact that on the finished component at least some of the functional zones are elevated compared to the adjacent surfaces or have at least the same level.

10. Ball cage pursuant to one of the claims 1 through 9, characterized by the fact that this cage has functional zones that have an elevated design on the fin areas, which separate the ball pockets, and has functional zones that have been hard-turned.

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